

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):



### **BLACK BORDERS**

- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

OPIC  
Office of Intellectual Property  
BUREAU DE PROPRIÉTÉ  
INTELLECTUELLE DU CANADA



CIPPO  
Canadian Intellectual  
Property Office

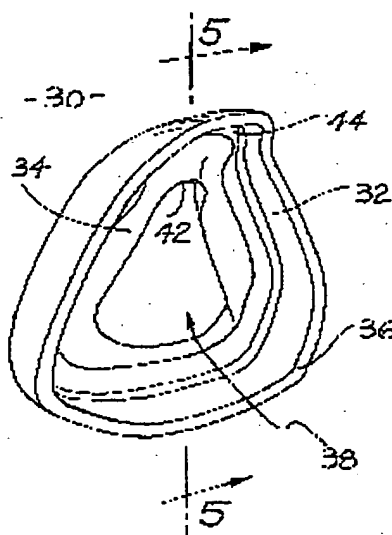
(12) (19) (CA) Demande-Application

(21) (A1) 2,261,790

(86) 1997/07/16

(87) 1998/02/05

(72) KWOK, Philip Rodney, AU  
(72) STYLES, Robert Edward, AU  
(71) RUSMID LIMITED, AU  
(51) Int. Cl.<sup>6</sup> A61M 16/06  
(30) 1996/07/26 (PO 1265) AU  
(54) MASQUE NASAL ET SA SURFACE D'APPUI  
(54) A NASAL MASK AND MASK CUSHION THEREFOR



(57) La présente invention concerne une surface d'appui (30) pour masque nasal comprenant un cadre de forme sensiblement triangulaire (32) à partir duquel s'étend une membrane (34). Ce cadre (32) comprend un bord élargi (36) au moyen duquel la surface d'appui est appliquée sur le corps du masque. La membrane (34) comprend une ouverture (38) dans laquelle vient se placer le nez de l'utilisateur. La membrane (34) est écartée du bord (40) du cadre (32) et sa surface extérieure (41) présente sensiblement la même forme que celle du bord (40). Des encoches respectives (42, 44) accueillent l'arête du nez de l'utilisateur. Le nez de l'utilisateur

(57) A nasal cushion (30) comprises a substantially irregularly shaped frame (32) from which extends a membrane (34). The frame (32) has a mask gasket (36) by which the cushion (30) is affixed to a mask body. The membrane (34) has an aperture (38) into which the wearer's nose is received. The membrane (34) is spaced away from the rim (40) of the frame (32), and its outer surface (41) is of substantially the same shape as the rim (40). Respective notches (42, 44) receive the bridge of the wearer's nose. The wearer's nose is received through the aperture (38) into the chamber within the mask body (46). The seal forming portion (45) thus contacts both the



Industrie Canada Industry Canada

CA 02261790 1999-01-25

WO 98/04310

PCT/CA97/00450

- 9 -

## Claims:

1. A nasal mask cushion to sealingly connect a mask to a wearer's face, the cushion comprising:

5 a substantially triangularly-shaped frame of resilient material having a rim to surround the wearer's nose;

a membrane also of resilient material, the membrane being relatively more flexible than the frame, and being of the same general shape as said rim and fixed to and extending away from the frame so as to have an outer surface spaced from the rim, a portion of said outer surface forming a face contacting seal; and

10 a nose-receiving cavity bounded by said frame and said membrane;

and wherein said seal portion is generally coterminal with respect to said rim and is resiliently deformable towards the rim in use of the cushion.

2. A nasal cushion as claimed in claim 1, wherein said membrane and  
15 said rim each has a co-located notch to accommodate the bridge of a nose.

3. A nasal cushion as claimed in claim 1 or claim 2, wherein said membrane and said rim are substantially saddle-shaped.

20 4. A nasal cushion as claimed in claim 3, wherein said membrane is shaped so that said seal portion, in use, contacts at least a wearer's nose.

5. A nasal cushion as claimed in claim 4, wherein said seal portion, in use, contacts the facial tissue around the sides and over the bridge of the nose, and  
25 between the base of the nose and the top lip.

CA 02261790 1999-01-25

WO 9304310

FCT/AU97/00450

- 10 -

6. A nasal cushion as claimed in claim 1, wherein said rim and said seal portion are shaped to generally match facial contours of the facial tissue around the sides and over the bridge of the nose, and between the base of the nose and the top lip.

5 7. A nasal mask for connection to a wearer's face comprising:  
a mask body for connection with a supply of breathable gas; and  
a nasal cushion, the body and cushion defining a nose-receiving cavity, the cushion including:

10 a substantially triangularly-shaped frame of resilient material having a rim to surround the wearer's nose;

a membrane also of resilient material, the membrane being relatively more flexible than the frame, and being of the same general shape as said rim and fixed to and extending away from the frame so as to have an outer surface spaced from the frame, a portion of said outer surface forming a face contacting seal;

15 and wherein said seal portion is generally coterminous with respect to said rim and is resiliently deformable towards the rim in use of the mask.

8. A nasal mask as claimed in claim 7, wherein said mask body includes attachment points.

20

9. A nasal mask as claimed in claim 8, further comprising securing straps fixed to said attachment points.

10. A nasal mask as claimed in claim 9, wherein said membrane and said  
25 rim each has a co-located notch to accommodate the bridge of a nose.

11. A nasal mask as claimed in claim 10, wherein said membrane and said rim are substantially saddle-shaped.

CA 02261790 1999-01-25

WO 98/04310

PCT/AU97/00450

- 11 -

12. A nasal mask as claimed in claim 11, wherein said membrane is shaped so that said seal portion, in use, contacts at least a wearer's nose.

5 13. A nasal mask as claimed in claim 12, wherein said seal portion, in use, contacts the facial tissue around the sides and over the bridge of the nose, and between the base of the nose and the top lip.

10 14. A nasal mask as claimed in any one of claims 7, 8 or 9, wherein said rim and said seal portion are shaped to generally match facial contours of the facial tissue around the sides and over the bridge of the nose, and between the base of the nose and the top lip.

15 15. Nasal CPAP treatment apparatus comprising:  
a flow generator for the supply of gas at a pressure elevated above atmospheric pressure;  
a gas delivery conduit coupled to said flow generator; and  
a nasal mask in turn coupled to said conduit to said nasal mask including:  
a mask body for connection with a supply of breathable gas; and  
20 a nasal cushion, the body and cushion defining a nose-receiving cavity, the cushion including:  
a substantially triangularly-shaped frame of resilient material having a rim to surround the wearer's nose;  
a membrane also of resilient material, the membrane being relatively more  
25 flexible than the frame, and being of the same general shape as said rim and fixed to and extending away from the frame so as to have an outer surface spaced from the frame, a portion of said outer surface forming a face contacting seal;

CA 02261790 1999-01-25

WO 98/04310

PCT/AU97/00450

- 12 -

and wherein said seal portion is generally coterminous with respect to said rim and is resiliently deformable towards the rim in use of the mask.

16. CPAP treatment apparatus as claimed in claim 15, wherein said mask  
5 body includes attachment points.

17. CPAP treatment apparatus as claimed in claim 16, wherein further comprising securing straps fixed to said attachment points.

10 18. CPAP treatment apparatus as claimed in claim 17, wherein said membrane and said rim each has a co-located notch to accommodate the bridge of a nose.

15 19. CPAP treatment apparatus as claimed in claim 18, wherein said membrane and said rim are substantially saddle-shaped.

20. CPAP treatment apparatus as claimed in claim 19, wherein said membrane is shaped so that said seal portion, in use, contacts at least a wearer's nose.

20 21. CPAP treatment apparatus as claimed in claim 20, wherein said seal portion, in use, contacts the facial tissue around the sides and over the bridge of the nose, and between the base of the nose and the top lip.

25 22. CPAP apparatus as claimed in any one of claims 15, 16 or 17 wherein said rim and said seal portion are shaped to generally match facial contours of the facial tissue around the sides and over the bridge of the nose, and between the base of the nose and the top lip.



Industry  
Canada

Industrie  
Canada

Canada

Français  
Home

Contact Us  
Site Map

Help  
What's New

Search  
About Us

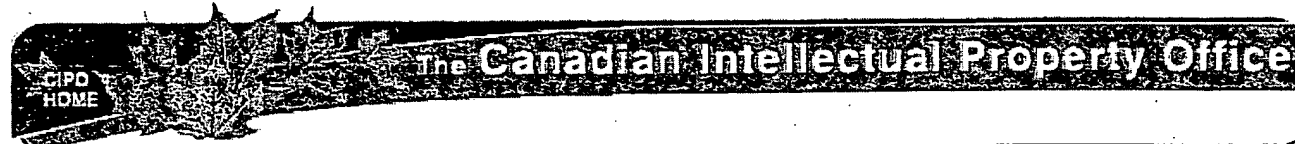
Canada Site  
Registration

Strategis Index:

A B C D E F G H I J K L M N O P Q R S T U V W X Y  
Z

strategis.gc.ca

CIPO  OPIC



## Canadian Patents Database

03/15/2002 - 07:42:32

(12) Patent Application:

(11) CA 2261790

(54) A NASAL MASK AND MASK CUSHION THEREFOR

(54) MASQUE NASAL ET SA SURFACE D'APPUI

View or Download Images

(72) <u>Inventors</u> (Country):	STYLES, Robert Edward (Australia) KWOK, Philip Rodney (Australia)
(73) <u>Owners</u> (Country):	RESMED LIMITED (Australia)
(71) <u>Applicants</u> (Country):	RESMED LIMITED (Australia)
(74) <u>Agent</u> :	Swabey Ogilvy Renault
(45) <u>Issued on</u> :	
(22) <u>Filed on</u> :	July 16, 1997
(43) <u>Laid open on</u> :	Feb. 5, 1998
(51) <u>International Class (IPC)</u> :	A61M 16/06

Patent Cooperation Treaty (PCT): Yes

(85) <u>National entry on</u> :	Jan. 25, 1999
(86) <u>PCT Filing number</u> :	PCT/AU1997/000450
(87) <u>International publication number</u> :	WO1998/004310

(30) Application priority data:

Application No.	Country	Date
PO 1265	Australia	July 26, 1996

Availability of licence:

N/A

Language of filing:

English

**ABSTRACT:**

A nasal cushion (30) comprises a substantially triangularly shaped frame (32) from which extends a membrane (34). The frame (32) has a scalloped edge (36) by which the cushion (30) is affixed to a mask body. The membrane (34) has an aperture (38) into which the wearer's nose is received. The membrane (34) is spaced away from the rim (40) of the frame (32), and its outer surface (41) is of substantially the same shape as the rim (40). Respective notches (42, 44) receive the bridge of the wearer's nose. The wearer's nose is received through the aperture (38) into the chamber within the mask body (46). The seal forming portion (45) thus contacts both the surface of the wearer's nose and a portion of the wearer's face in the region between the base of the nose and the upper lip, and around the sides and over the bridge of the nose. The shape of the seal forming portion (45) is particularly suited to effectively seal the difficult region of the facial contour that is the crease between the sides of the nose and the face.

**CLAIMS:** [Show all claims](#)

\*\*\* Note: Data on abstracts and claims is shown in the official language in which it was submitted.

---

View or Download Images :

- ☒ Cover Page Image
- ☐ Abstract Image
- ☐ Claims Image
- ☐ Disclosures Image
- ☐ Drawings Image

[View the Image](#)

[Download in Adobe PDF](#)

[Top of Page](#)

---

Last Modified: 2001/06/13

[Important notices and disclaimers](#)  
[Privacy Statement](#)